

In the Claims:

This listing of the claims will replace all prior versions and listing of claims in the application.

1 to 3. (cancelled)

4. (currently amended) A method for producing a molecular array which method comprises:

(i) providing a molecular array comprising a plurality of functional molecules with known identity immobilised to a solid phase at a density such that each individual immobilised ~~molecules are molecule is~~ not capable of being individually resolved; and

(ii) reducing the density of functional immobilised molecules in the array such that remaining individual functional immobilised molecules are capable of being individually resolved; wherein each individual functional molecule in the ~~resulting reduced~~ array is spatially addressable ~~and the identity of each molecule is known or determined prior to the density reduction step.~~

5 to 6. (cancelled)

7. (currently amended) A ~~The~~ method according to claim 4 wherein ~~the density of functional molecules is reduced by labelling some of only a portion of~~ the plurality of molecules is such that individual immobilised labelled molecules are capable of being individually resolved.

8 to 14. (cancelled)

15. (currently amended) A ~~The~~ method according to ~~any preceding claim 4,~~ wherein the molecules in step (i) comprise a detectable label.

16. (currently amended) A ~~The~~ method according to claim 15 wherein the label can be read by optical methods.

17. (currently amended) A ~~The~~ method according to claim 15 or claim 16 wherein the label is a single fluorescent molecule, nanoparticle or nanorod, or a plurality of fluorescent molecules, nanoparticles or nanorods.

18 to 19. (cancelled)

20. (currently amended) A ~~The~~ method according to ~~anyone of claims 1 to 19~~ claim 4 wherein the molecules are selected from defined chemical entities, oligonucleotides, polynucleotides, peptides,

polypeptides, conjugated polymers, small organic molecules or analogues, mimetics or conjugates thereof.

21. (currently amended) A ~~The~~ method according to claim 20 wherein the molecules are cDNA and/or genomic DNA.

22 to 23. (cancelled)

25. (currently amended) A ~~The~~ method according to ~~anyone of claims 1 to 24~~ claim 4 wherein ~~each of the~~ immobilised molecules in step (ii) are immobilised onto a single electrode.

26. (currently amended) A ~~The~~ method according to ~~anyone of claims 22 to 25~~ claim 25 wherein the electrode(s) transduce a signal when a target molecule binds to ~~an~~ the immobilised molecule present in the same element as an electrode.

27 to 126. (canceled)